

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001341**Date Inspected:** 30-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:****Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:****Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:****Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:****Yes No N/A****Delayed / Cancelled:****Yes No N/A****Bridge No:** 34-0006**Component:** Tower mock ups, OBG components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and fabrication of the SAS Superstructure.

* ADDENDUM to TL-6031/TL-6027 dated 1-23-2008, written by the QA inspector Scott Croff*

After review of the approved TL-6031 and TL-6027 reports from 1-23-2008, the QA inspector Scott Croff needs to clarify and add that the ultrasonic testing (UT) verification that was conducted on the Lower 114 meter tower mock up assembly was in the accessible locations where the jacks were positioned.

END of ADDENDUM

Bay 7: The QA inspector conducted random visual examination and ultrasonic testing (UT) verification of welds that have been completed and accepted by ZPMC Quality Control (QC) personnel. At the time of 10% examination, FB001-02 welds 021 & 026, FB007-03 welds 021 & 026, FB007-04 welds 021 & 026, FB007-05 welds 021 & 026, FB-15-02 weld 023 and FB003-02 welds 005, 006 & 103 appeared to be conforming to the requirements of AWS D1.5 2002 Table 6.3. The QA inspector noted that during the 10% examination of FB015-02 weld 026, there were ultrasonic indications observed that do not satisfy the UT acceptance criteria of AWS D1.5 2002 Table 6.3. The QA inspector noted that these indications could be resulting from the weld geometry. The QA inspector noted that the contract special provisions require that "Groove weld surface profiles that produce questionable test results shall be ground smooth and blended with the adjacent material." The QA inspector marked the examined area where questionable results were observed and notified the QC Liaison Lay Tau of the weld with this observed condition. The QA inspector also noted that during the 10% examination of FB007-03, there was an arc strike in the base metal adjacent to weld 026. The QA inspector noted that this arc strike

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was in a position that could affect the 100% UT requirements for QC inspection, however the QA inspector is not aware of when this observed arc strike was created. The QA inspector noted that this Floor Beam diaphragm assembly has been visually inspected and accepted by ZPMC QC inspectors. This observed arc strike is located on a plate section that is designed to be a seismic performance critical member (SPCM) and does not conform to the contract requirements. See the attached photo.



Summary of Conversations:

As noted in the addendum to the approved TL-6031/TL-6027 reports from 1-23-2008, the QA inspector Robert Cuellar asked the QA inspector Scott Croff to clarify the areas that received UT verification. The QA inspector Scott Croff was informed that at this time, those reports can not be revised to include this detail.

The QA inspector Scott Croff had a conversation with the QC Liaison Lay Tau. As noted above, the QA inspector informed the QC Liaison of the weld area that should be ground smooth per the contract special provisions. The QA inspector was informed that this information would be relayed to ZPMC's day shift QC personnel. There were no other notable conversations during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Croff, Scott	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
